

Overview

Method Name

Direct Radioimmunoassay

NY State Available

No

Specimen

Specimen Type

Serum

Specimen Required

Patient preparation:

Patient should not be on any Steroid, ACTH, Gonadotropin, or Estrogen medications, if possible, for at least 48 hours prior to collection of specimen.

Specimen Type: Serum

Container/Tube: Red top or SST

Specimen Volume: 3 mL

Collection Instructions: Draw blood in a plain, red-top tube(s), serum-gel tube(s) is acceptable. Separate immediately and send 3 mL of serum frozen in a plastic vial.

Specimen Minimum Volume

1 mL

Reject Due To

Gross hemolysis	Reject
Gross lipemia	Reject
Gross icterus	Reject
Other	Specimens other than Serum or Plasma EDTA listed.

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
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Test Definition: FGNRH

Gonadotropin Releasing Hormone (Gn-RH,
Luteinizing Hormone-Releasing Hormone
LH-RH)

Serum	Frozen (preferred)	180 days	
	Refrigerated	7 days	

Clinical & Interpretive

Clinical Information

Gonadotropin-Releasing Hormone (Gn-RH), also known as Luteinizing Hormone-Releasing Hormone (LH-RH), is a decapeptide secreted pulsately from the hypothalamus. It stimulates the release of the Gonadotropins - Luteinizing Hormone and Follicle Stimulating Hormone - exerting a stronger effect on Luteinizing Hormone. Testosterone and Estradiol, whose release is stimulated by the Gonadotropins, exert a negative feedback control on LH-RH both at the hypothalamic site and by decreasing pituitary receptor binding. LH-RH levels are low in patients with hypothalamic hypogonadism differentiating them from the high levels usually found in primary hypopituitary hypogonadism. Accentuation of the LH-RH pulse occurs at the onset of puberty triggering the release of LH and FSH required in pubertal development. LH-RH is stimulated by Epinephrine and suppressed by Dopamine and opiates. LH-RH and some of its agonists are frequently used to induce ovulation.

Reference Values

Adult Reference Range(s):
Males: 4.0 - 8.0 pg/mL
Females: 2.0 - 10.0 pg/mL

No pediatric reference ranges available for this test.

Clinical Reference

1. J Schopohl, G Mehlretter, R von Zumbusch, T Eversmann, and L von Werder. Comparison of Gonadotropin-Releasing Hormone and Gonadotropin Therapy in Male Patients with Idiopathic Hypogonadism. Fertility and Sterility 56: 1143-1150, 1991.
2. CB Lambalk, J Schoemaker, GP van Rees, J de Koning, and HAMJ van Dieten. Exogenous versus Endogenous Pulses of Luteinizing Hormone-Releasing Hormone and Secretory Patterns of Gonadotropins. Fertility and Sterility 56: 446-452, 1991.

Performance

PDF Report

No

Day(s) Performed

Monday through Friday

Report Available

Test Definition: FGNRH

Gonadotropin Releasing Hormone (Gn-RH,
Luteinizing Hormone-Releasing Hormone
LH-RH)

7 to 11 days

Performing Laboratory Location
Inter Science Institute

Fees & Codes

Fees

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact [Customer Service](#).

Test Classification

This test was developed and its performance characteristics determined by Inter Science Institute. It has not been cleared or approved by the US Food and Drug Administration. The FDA has determined that such clearance or approval is not necessary.

CPT Code Information
83727

LOINC® Information

Test ID	Test Order Name	Order LOINC® Value
FGNRH	Gonadotropin Releasing Hormone	13660-6

Result ID	Test Result Name	Result LOINC® Value
Z0929	Gonadotropin Releasing Hormone	13660-6